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EXAMINER				
MINSKEY, JACOB T				
ART UNIT		PAPER NUMBER		
1791				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/557,580

Applicant(s)

AKIYAMA, HISANORI

Examiner

JACOB T. MINSKEY

Art Unit

1791

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/11/2009 have been fully considered but they are not persuasive.
2. Applicant traverses the anticipation rejections by Siders. Applicant's first argument is that Siders fails to teach the limitation of determining the area of the edge shape and instead simply teaches selecting a lens blank to use in the process. The Examiner respectfully disagrees. The claim merely requires that the area of the edge shape is determined. First of all, this can be construed as a mental step that would inherently have to occur to make a finished product. As long as there is a desired end shape, the area of the edge must be either implicitly or explicitly "determined" is the finished product will be usable in the specific lens shape that is requested by the customer. Secondly, the act of selecting a blank also reads on the limitation of "determining" the area of the edge shape. A lens blank will be selected based on its starting properties for ease of processing into the desired final product. The act of determining the edge area will inherently be performed in selecting which blank to use (either in selecting one blank from a group or in the earlier steps of forming the blanks to a desired shape).
3. The second argument presented by the Applicant is that the geometrical center of the edge is not the same as the geometric center of the material as currently claimed. Applicant argues that Siders teaches that the two centers become the same point only after both forming and edging. The Examiner respectfully disagrees. It is the

Examiner's stance that the edging is simply a part of the formation. The claim does not restrict formation of the lens to be restricted to only the top and or bottom surface, and an edging step that occurs would be considered part of the overall formation process. Even if they were to be considered as two separate steps, the claim utilizes the transitional phrase comprising, which is open ended and allows for additional limitations to be present in the prior art reference. See MPEP 2111.03.

4. The final argument by Applicant is that Siders is silent on the teaching that the geometric center and the optical center of the lens are different. It is the Examiner's stance that even though Siders is silent on any explicit teaching, Siders does in fact provide an inherent teaching on the matter. [0088] of Siders teaches a process on how to mark and identify where the optical center is on the lens blank so further processing can create lines or points of reference. It is clear to one of ordinary skill in the art that this step would be unnecessary if the optical center was the same point as the geometric center. The geometric center is centered on the apparatus, and it is in a known location prior to any processing. There would not be any point to marking and locating the optical center if it was at the same location, because it would already be clearly known. Siders clearly provides an implicit teaching of the limitation in question.
5. Any remaining arguments are focused on the same principles as discussed above. The rejections of the claims are re-printed below.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

7. A person shall be entitled to a patent unless –

8. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Siders et al, US Patent Publication 2003/0181133.

10. Regarding claim 1, Siders teaches a method of manufacturing a spectacle lens (see abstract) based on order information including spectacle frame information, a prescription value, and layout information (step 12 figure 1), the method comprising: forming a lens member by forming a curved surface shape (see figures 1-10) satisfying an optical specification of the spectacle lens related to an order on a plastic material (lens blank item 108 see abstract); and edging [0080 and 0090] to process the lens member into an edge shape of the spectacle lens related to the order (see figures 1-3), wherein an area of the edge shape on a surface of the plastic material is determined prior to the step of forming the lens member (steps 10-18 in figure 1) and said lens member forming step forms a curved surface shape on the plastic material so that a geometric center of the edge shape positions at a geometric center of the plastic material (item 238 [0122-0124] and figure 19) and the geometric center of the plastic material does not match an optical center of the spectacle lens (see figures 13-19 and [0088]).

11. Siders additionally states that it is known in the art to center the block lens on the lens center in what is called "lens blank geometric center blocking" [0011-0014].

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

a. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

14. Determining the scope and contents of the prior art.
15. Ascertaining the differences between the prior art and the claims at issue.
16. Resolving the level of ordinary skill in the pertinent art.
17. Considering objective evidence present in the application indicating obviousness or nonobviousness.

18. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa et al, US patent publication 2002/0160690 A1 in view of Siders et al, US Patent Publication 2003/0181133.

19. Regarding claim 1, Miyazawa et al teach a spectacle lens manufacturing method [0033] manufacturing a spectacle lens based on order information ([0034] and [0037-0038]) including spectacle frame information, a prescription value, and layout information, comprising the steps of: forming a lens member to obtain the lens member by forming a curved surface shape satisfying an optical specification of the spectacle

lens related to an order [0037,0042] on a plastic material [0014]; and edging to process the lens member to be shaped into an edge shape of the spectacle lens related to the order (chamfering, [0042]), and the geometric center of the plastic material does not match an optical center of the spectacle lens (see figure 6).

20. Miyazawa teaches controlling the adjustments of the geometric center of the lens blank and optical center, but does through adjustments of the operation and calculations. Miyazawa does not explicitly teach wherein said lens member forming step forms a curved surface shape on the plastic material so that a geometric center of the edge shape positions at a geometric center of the plastic material.

21. In the same field of endeavor of forming lenses from lens blanks by order, Siders teaches a method wherein an area of the edge shape on a surface of the plastic material is determined prior to the step of forming the lens member (steps 10-18 in figure 1) and said lens member forming step forms a curved surface shape on the plastic material so that a geometric center of the edge shape positions at a geometric center of the plastic material (item 238 [0122-0124] and figure 19) and the geometric center of the plastic material does not match an optical center of the spectacle lens (see figures 13-19 and [0088]).

22. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Siders' teaching to align the geometric centers of the edge lens and lens blank on the machine center of the apparatus in the Miyazawa method for the benefit of directly controlling where the geometric center of the lens will be without

needed to make corrective calculations in the operation. This will provide better quality and ease of operation.

23. Regarding claim 2, Miyazawa further teaches that the lens member forming step uses a lens blank (semi-finished lens, [0044]) of which both the surface have not yet processed to the curved surface shape satisfying the optical specification of the spectacle lens related to the order [0044] but processed to a predetermined surface shape as the plastic material of a processing target, and is able to process the spectacle lens related to the order appropriately out of a plurality of lens blanks manufactured and prepared in advance [0044-0045], and wherein the lens blank having an outside diameter at least larger than a maximum distance between a frame center and a frame of the spectacle frame related to the order and having the smallest outside diameter as well ("the semi-finished lens, therefore has a thickness relatively larger than a finish thickness" [0044]) is selected and processed so that the spectacle lens related to the order is manufactured (optimum semi-finished lens to be machined is selected from the stock [0045]).

24. Regarding claim 3, Miyazawa further teaches that said lens member forming step uses a numerical-control curve generator [0052] generating the curved surface shape of a processing target by controlling distances from a cutting blade to the plastic material (X, Y, and Z- axis positioning means [0052]) and a rotation axis (figure 2, item 213 [0052]), respectively, in accordance with the curved surface shape of a formation target while rotating the plastic material around the rotation axis passing through a specific point of the curved surface of the processing target (center coordinate and normal line,

[0052-0054]), and wherein the plastic material is arranged so that the center thereof being a geometric center (MC [0083]) of an edge shape of the spectacle lens comes above the rotation axis (figures 5 and 6, [0082-0083]), a calculation is made to obtain a tilt angle (angle [0083]) in a case where a reference surface of the plastic material is tilted at a predetermined angle with respect to a case where the processing is performed on assumption that an optical center or a lens vertex positions above the rotation axis, and a processing is performed by tilting the reference surface of the plastic material beforehand to offset the tilted angle [0083].

25. Regarding claim 4, Miyazawa teaches a spectacle lens manufacturing system [0033], comprising: an order placement-side computer (online terminal, [0037]) processing and transmitting information required to order a spectacle lens including frame shape information [0037]; a manufacturing-side computer (calculating computer [0043]) acquiring information required to manufacture the spectacle lens-related to the order by receiving the information transmitted by the order placement-side computer [0043 and 0045]; and a spectacle lens manufacturing device manufacturing the spectacle lens-related to the order that is processed to have a shape settable in a frame by performing processes including formations of a curved surface and edge shape on a plastic material based on the information acquired by the manufacturing-side computer [0049]; wherein said spectacle lens manufacturing device uses, as the plastic material of a processing target [0014], a lens blank being a partly finished product of which both surfaces are not yet processed to have a curved surface satisfying an ultimate optical specification but have a predetermined surface shape (semi-finished lens [0043-0044]),

wherein a geometric center of the lens blank matches with a frame center of the edge shape to be processed (see discussion above [0052-0054]), wherein said spectacle lens manufacturing device selects, out of plural lens blank (stocked semi-finished lenses [0045]) of different outside diameters and/or lens thicknesses prepared in advance [0044-0045], the lens blank having the outside diameter and/or lens thickness size(s) allowing an appropriate processing for the spectacle lens-related to the order [0044-0045], wherein the selection of the outside diameter of the lens blank is conducted by specifying based on a distance from a frame center to a frame and the spectacle lens-related to the order is manufactured by processing the selected lens blank [0044-0045], and wherein the curved surface formation is performed to both the surfaces of the lens blank selected by the selection [0035].

26. Miyazawa teaches controlling the adjustments of the geometric center of the lens blank and optical center, but does through adjustments of the operation and calculations. Miyazawa does not explicitly teach wherein said lens member forming step forms a curved surface shape on the plastic material so that a geometric center of the edge shape positions at a geometric center of the plastic material.

27. In the same field of endeavor of forming lenses from lens blanks by order, Siders teaches a method wherein an area of the edge shape on a surface of the plastic material is determined prior to the step of forming the lens member (steps 10-18 in figure 1) and said lens member forming step forms a curved surface shape on the plastic material so that a geometric center of the edge shape positions at a geometric center of the plastic material (item 238 [0122-0124] and figure 19) and the geometric

center of the plastic material does not match an optical center of the spectacle lens (see figures 13-19 and [0088]).

28. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Siders's teaching to align the geometric centers of the edge lens and lens blank on the machine center of the apparatus in the Miyazawa method for the benefit of directly controlling where the geometric center of the lens will be without needed to make corrective calculations in the operation. This will provide better quality and ease of operation.

29. Regarding claim 5, further teaches that said lens member forming step uses a numerical-control curve generator [0052] generating the curved surface shape of a processing target by controlling distances from a cutting blade to the plastic material (X, Y, and Z- axis positioning means [0052]) and a rotation axis (figure 2, item 213 [0052]), respectively, in accordance with the curved surface shape of a formation target while rotating the plastic material around the rotation axis passing through a specific point of the curved surface of the processing target (center coordinate and normal line, [0052-0054]), and wherein the plastic material is arranged so that the center thereof being a geometric center (MC [0083]) of an edge shape of the spectacle lens comes above the rotation axis (figures 5 and 6, [0082- 0083]), a calculation is made to obtain a tilt angle (angle [0083]) in a case where a reference surface of the plastic material is tilted at a predetermined angle with respect to a case where the processing is performed on assumption that an optical center or a lens vertex positions above the rotation axis, and

a processing is performed by tilting the reference surface of the plastic material beforehand to offset the tilted angle [0083].

Conclusion

30. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACOB T. MINSKEY whose telephone number is (571)270-7003. The examiner can normally be reached on Monday to Friday 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JTM

/Eric Hug/
Primary Examiner, Art Unit 1791